

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): David B. Mitzi
Serial No.: Not yet assigned
For: SOLUTION DEPOSITION OF CHALCOGENIDE FILMS
Filed: Concurrently herewith
Examiner: Not yet assigned
Customer No.: 27623
Art Unit: Not yet assigned

Attorney Docket No.: YOR920030231US1

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In accordance with applicant's duty of disclosure under 37 C.F.R. §1.56, please find attached hereto form PTO-1449 listing information which may be material to the patentability of this application, filed concurrently herewith. This Information Disclosure Statement is being filed:

XXX Within three (3) months of the filing date of the national application;

_____ Within three (3) months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application;

_____ Before the mailing date of a first Office Action on the merits;

_____ After the filing date or date of first Office Action, but before the mailing date of a final action under 37 C.F.R. §1.113, provided that this occurs prior to the issuance of a Notice of Allowance and provided that this I.D.S. is accompanied by either a certification as specified in 37 C.F.R. §1.97(e) or the fee set forth in 37 C.F.R. §1.17(p);

_____ After the filing date or date of first Office Action, but before the mailing date of a Notice of Allowance under 37 C.F.R. §1.311, provided that this occurs prior to the final action and provided that this I.D.S. is accompanied by either a certification as specified in 37 C.F.R. §1.97(e) or the fee set forth in 37 C.F.R. §1.17(p);

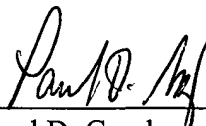
- _____ After the mailing date of a final action under 37 C.F.R. §1.113, provided that this occurs prior to the issuance of a Notice of Allowance and provided that this I.D.S. is accompanied by either a certification as specified in 37 C.F.R. §1.97(e), a petition requesting consideration of the I.D.S., and the petition fee set forth in 37 C.F.R. §1.17(i)(1); and
- _____ After the mailing date of a Notice of Allowance under 37 C.F.R. §1.311, provided that this occurs prior to the issuance of a final action and provided that this I.D.S. is accompanied by either a certification as specified in 37 C.F.R. §1.97(e), a petition requesting consideration of the I.D.S., and the petition fee set forth in 37 C.F.R. §1.17(I)(1).

It should be understood that attention has been called to the references that have been deemed to be pertinent to the claimed present invention. In concluding what was pertinent, the criteria employed was considered most appropriate in light of the invention shown in the present application. However, the Examiner or others may deem some other criteria to be just as appropriate or more appropriate. Therefore, the Examiner is respectfully urged to review the listed references and to make the usual careful independent search for other prior art that may be pertinent.

Respectfully submitted,

July 10, 2003

Date



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FORM PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Docket Number (Optional)	Application Number
	YOR920030312US1	Not yet assigned
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U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,420,056	7/16/02	Chondroudis et al.	428	690	
	6,379,585	4/30/02	Vecht et al.	252	301	
	6,180,956	1/30/01	Chondroudis et al.	257	40	
	5,347,144	9/13/94	Garnier et al.	257	40	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	D.C. Reynolds et al., " <i>Photovoltaic Effect in Cadmium Sulfide</i> ", Letter to the Editor, pg. 533-534.
	S.E. Shaheen et al., " <i>Organic Light-Emitting Diode with 20 lm/W Efficiency Using a Triphenyldiamine Side-Group Polymer as the Hole Transport Layer</i> ", Applied Physics Letters, vol. 74, No. 21, pg. 3212-3214, May 24 1999. ✓
	Putz et al., " <i>Spin-Coating of MoS₂ Thin Films</i> ". ✓
	Schon et al., " <i>Solution Processed CdS Thin Film Transistors</i> ", Elsevier, Thin Films 385 (2001) 271-274. ✓
	Mitzi et al., " <i>Organic-Inorganic Electronics</i> ", IBM Res. & Dev. , vol. 45, No. 1, January 2001. ✓
EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

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	Gan et al., " <i>Preparation of Thin-Film Transistors with Chemical Bath Deposited CdSe and CdS Thin Films</i> ", IEEE , vol. 49, No. 1, January 2002. ✓						
	Mitzi et al., " <i>Hybrid Field-Effect Transistor Based on a Low-Temperature Melt-Processed Channel Layer</i> ", Advanced Materials, vol. 14, No. 23, December 3, 2002. ✓						
	Dimitrakopoulos et al., " <i>Organic Thin-Film Transistors: a Review of Recent Advances</i> ", IBM J. Res. & Dev., vol. 45, No. 1, January 2001. ✓						
	Domingo et al., " <i>Fundamental Optical Absorption in SnS2 and SnSe2</i> ", Physical Review, March 1966. ✓						
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	Ben G. Steersman, " <i>Solid State Electronic Devices</i> ", Second Edition, Prentice-Hall, Inc., pg. 443. ✓
	Crunches et al., "Composition of CuInS ₂ Thin Films Prepared by Spray Pyrolysis", Elsevier, www.elsevier.com/locate/tsf , Thin Solid Films 403-404 (2002) 71-75. ✓
	S. M. Sze, " <i>Physics of Semiconductor Devices</i> ", Joh Wiley & Sons, pg.849. ✓
	Shibata et al., " <i>Electrical Characterization of 2H-SnS₂ Single Crystals Synthesized by the Low Temperature Chemical Vapor Transport Method</i> ", J. Phys. Chem. Solids, vol. 52, No. 3, pg. 551-553, 1991. ✓
	Sankapal et al., " <i>Successive Ionic Layer Adsorption and Reaction (SILAR) Method for the Deposition of Large Area (~10 cm²) Tin Disulfide (SnSn₂) Thin Films</i> ", Material Research Bulletin 35 (2000) 2027-2035. ✓

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	J. Vanfleteren, "Polycrystalline CdSe Films for Thin Film Transistors", Journal of Crystal Growth 86 (1988) 924-928. ✓
	Chern et al., "Spin-Coated Amorphous Chalcogenide Films", J. Appl. Phys. 53 (10), October 1982 ✓

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	Dhingra et al., " <i>The Use of Soluble Metal-Plyselenide Complexes as Precursors to Binary and Ternary Solid Metal Selenides</i> ", Material Resource Society, vol. 180, 1990.					
	Davies et al., " <i>A Novel Method for the Preparation of Inorganic Sulfides and Selenides I. Binary Materials and Group II-VI Phosphors</i> ", Journal of the Electrochemical Society, 147 (2), 765-771, 2000.					
	Marsh et al. " <i>A Method for the Clean Syntheses of Sulfides/Selenides II. Ternary Sulfides/Selenides</i> ", Journal of the Electrochemical Society, 148 (7), D89-D-93, 2001.					
	Ridley et al., " <i>All-Inorganic Field Effect Transistors Fabricated by Printing</i> ", www.sciencemag.org, vol. 286, October 22, 1999.					
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